

NOTES ON THE WINTER FOOD OF SCREECH OWLS IN CENTRAL UTAH

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During the winter season of 1968-69, pellets were collected from beneath several roosting sites of a single screech owl (*Otus asio*) in central Utah. The roosts were located among the buildings of the abandoned Ironton Steel Mill in Springville, Utah. The 500-acre steel mill property includes over 60 buildings and is surrounded by open areas of marsh, grassy fields, and several small, shallow ponds. Very few trees are present in the immediate area. The winter bird populations in and around the mill consisted almost entirely of pigeons (*Columba livia*), starlings (*Sturnis vulgaris*), and house sparrows (*Passer domesticus*). Mammals trapped or observed included deer mice (*Peromyscus maniculatus*), house mice (*Mus musculus*), meadow mice (*Microtus pennsylvanicus*), and vagrant shrews (*Sorex vagrans*). Two pairs of barn owls (*Tyto alba*) were present within the territorial area utilized by the screech owl. These owls occupied their territory throughout the year, but the screech owl apparently left the mill area in mid-March and was not observed in the vicinity again.

A total of 67 pellets was collected during January, February, and early March. Pellet analysis followed standard techniques described by Errington (1930), and results are presented in Table 1. The approximate prey weights used in the biomass determinations were obtained from Craighead and Craighead (1956) and Marti (1969).

Pellets contained from one to four prey individuals but averaged only 1.1 individuals per pellet. They yielded a total of 80 prey individuals of which 24.9% were mammals, 51.3% were birds, and 23.8% were insects. Three mammal, two avian, and three insect

Table 1. Winter contents of Screech Owl pellets near Springville, Utah.

Prey Species	No. Indv.	% Indv.	Biomass in gms.	% Biomass
<i>Microtus pennsylvanicus</i>	14	17.5	630.0	28.2
<i>Peromyscus maniculatus</i>	5	6.2	105.0	4.7
<i>Sorex vagrans</i>	1	1.2	13.0	0.6
<i>Passer domesticus</i>	37	46.3	1110.0	49.6
<i>Sturnis vulgaris</i>	4	5.0	376.0	16.8
Carabidae	2	2.5	0.5	Tr*
Tenebrionidae	4	5.0	2.2	0.1
<i>Forficula auricularia</i>	13	16.3	1.3	Tr.
Totals	80	100.0	2238.0	100.0

*Present in trace amounts only.

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forms were identified. The major component of most pellets, and the most frequently taken prey species, was the house sparrow, although meadow mice and European earwigs were also present in many pellets.

A review of previous literature on screech owl predation suggests that the prey species found in this study fall within the variety of prey previously recorded for this owl with the exception of the earwigs (*Forficula auricularia*), which appear to be reported herein for the first time. The utilization of vertebrates is comparatively high and seems to support Johnson's suggestions that the more northern screech owls prey heavily on vertebrates during winter when insect food is scarce, contrasting with the more insectivorous southern screech owls (Johnson, 1963; Earhart and Johnson, 1970).

We conclude that our observations lend support to this possibility and we feel that the screech owl is probably a relatively opportunistic predator, preying on the most easily and efficiently obtainable prey.

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